

REMARKS

Claims 1-30 and 39-43 were allowed in the Office Action dated August 6, 2003. Claims 31-38, 44 and 45 were rejected under 35 U.S.C. 102(e) as being anticipated by Chen (U.S. Pat. No 6,522,580). Reconsideration of the rejected claims, in light of the arguments presented below, is respectfully requested.

ARGUMENTS PRESENTED IN PHONE INTERVIEW

During the phone interview of November 4, 2003 the "Response to Response" section of the Office Action of August 6, 2003 was discussed. In particular, the rejection of Claim 31 based on "simultaneous" programming of cells in Chen, column 6, line 58-67 was discussed.

Claim 31 includes the limitation "the memory device is configured to simultaneously program the first and second sets of memory cells." The Office Action identified two sets of cells, "the set that stores data as shown in 'Pages 0,2'" and "the set that stores data as shown in 'Pages 1,3'" in figure 11 as corresponding to the claimed sets. The Office Action indicated that column 6, lines 58-67 disclosed simultaneous programming of these sets. However, the cells that are simultaneously programmed in column 6, lines 58-67 appear to be from one page. "This 532B data simultaneously read or programmed forms a 'page' logically." Column 6, lines 64-65. It is not clear how simultaneously programming the cells of a page would disclose the simultaneous programming of the first and second sets of memory cells identified in the Office Action.

Chen appears to show that the identified sets are programmed sequentially. Chen discloses "the first two pages of data bits that are programmed are written into the first alternate memory cells in a row, followed by writing the next two pages of data bits." See column 11, 29-32. In another example, "a bit from the lower 0 page is programmed first into the individual first set of alternate cells and then a bit from the lower page 1 into the individual second set of alternate cells." See column 10, lines 48-51. The sequence of programming of the cited sets of cells in these examples does not appear to be "simultaneous" as claimed in Claim 31.

ADDITIONAL ARGUMENTS

Chen shows that cells may be charged to four possible levels in Figure 11. This is further supported in the description at column 10, line 46 – column 11, line 62. It is not clear which

features of Chen are intended to correspond to the "first predetermined charge level corresponding to a first set of data bits" and "second predetermined charge level corresponding to a second set of data bits" of claim 31.

Because the claimed features have not been identified in the cited reference, claim 31 is submitted to be allowable.

Claim 44 includes the limitations discussed above and is therefore submitted to be allowable.

Claim 45 depends from claim 44 and is therefore allowable, at least for depending from an allowable independent claim.

Claim 32 depends from claim 31 and is therefore allowable, at least for depending from an allowable independent claim.

Claim 34 recites "continue programming until all memory cells in the second set have reached or exceeded the second predetermined charge level." The Office Action cited "level 62 in figure 13" as disclosing this feature. However, 62 is described as "distribution 62." See column 12, line 44. It is not clear which level is intended to correspond to the cited distribution 62.

"Level 61 in Figure 13" was cited as disclosing "the first predetermined level." Level 61 and distribution 62 correspond to the same state. See column 12, lines 18-30. Therefore, the claimed feature "second predetermined charge level corresponding to a second predetermined set of data bits" does not appear to be shown by distribution 62.

Because these limitations of claim 34 are not identified in the cited reference, claim 34 is submitted to be allowable.

Claims 33 and 35-38 are submitted to be allowable, at least for depending from allowable independent claims.

Accordingly, it is believed that the present application is now in condition for allowance, and an early indication of its allowance is solicited. However, if the Examiner is aware of any further matters that require attention, a telephone call to the undersigned at 415-318-1160 would be appreciated.

Respectfully submitted,



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